



Tab 11

Report on High School Graduates Performance

Coordinating Board for Higher Education

March 9, 2022

BACKGROUND

The Coordinating Board for Higher Education's Missouri Report on High School Graduates Performance tracks Missouri's public high school graduates entering the state's public two- and four-year degree-granting postsecondary institutions as first-time full-time degree-seeking undergraduate students in the fall semester following their high school graduation. The annual report, which was first issued in 1996, provides information to secondary and postsecondary stakeholders regarding student preparation, persistence, and completion.

The law that authorizes the CBHE to prepare the annual report (§ 173.750, RSMo) describes the report's contents, which must include "grade point averages after the initial college year...; the percentage of students returning to college after the first and second half of the initial college year, or after each trimester of the initial college year; the percentage of students taking noncollege level classes in basic academic courses during the first college year, or remedial courses in basic academic subjects of English, mathematics, or reading; and other such data as determined by rule and regulation of the coordinating board for higher education."

CURRENT STATUS

Overall postsecondary enrollment of public high school graduates in public in-state colleges and universities continues to decline. Total enrollment of recent high school graduates declined 4.7 percent from fall 2020 to 2021, notwithstanding a smaller decline in overall headcount enrollment (-0.8 percent) for public institutions. Total enrollment in remediation continues to decline, from 17.3 percent in 2020 to 16.9 percent in 2021.

Fall-to-fall persistence has been generally stable in recent years, although 75.4 percent of the incoming 2020 cohort re-enrolled in a public institution in fall 2021, compared to 76.8 percent from 2019 to 2020. 55.0 percent of incoming students in fall 2014 had earned a degree or certificate from a public two- or four-year institution by spring 2021. This is an increase from 53.5 percent for the 2014 cohort.

Enrollment and Preparation

This year's report provides data about postsecondary enrollment and preparation of the public high school graduating class of 2021. DHEWD staff did re-analyze historical data to account for revisions to some institutions' enrollment data, and to reduce, where possible, the number of students whose race/ethnicity was reported as unknown. Some historical data detailed here and in the attachment may differ from what was presented in past reports.

Total enrollment of same-year Missouri public high school graduates in Missouri public institutions decreased by 4.7 percent from 19,529 first-time full-time degree-seeking undergraduates in 2020 to 18,606 in 2021. Total public high school graduates in Missouri declined about 0.5 percent from 2019-20 to 2020-21. In its most recent enrollment report, the National Student Clearinghouse reported a decline of 2.4 percent nationally among traditional-age (18-24), and continued to attribute declines at least in part to the lingering COVID-19 pandemic.

For the first time in at least the past decade, a bare majority (50.1 percent) of Missouri's public high school graduates attended public two-year institutions. Enrollment of first-time full-time degree-seeking undergraduates in this cohort decreased by 0.5 percent at public two-year institutions from the previous year, but decreased at public four-year institutions by 8.6 percent. Detailed summary tables are included in the attachment to this item.

DHEWD continues to work with postsecondary institutions to encourage development of multiple math pathways and multiple measures for course placement, ensuring that only students who truly need remediation receive it, and that the form of remediation they receive is the most effective for both content mastery and career readiness. The department will continue to analyze the impact of corequisite supports—a form of remedial education designed to be taken at the same time as the college-level gateway course. The 2020 Report on College and Career Readiness found that the corequisite model, when implemented, tends to lead to higher pass rates for the gateway course (math or English/writing) than the prerequisite model.

However, these successes are not equitably distributed across student populations – Black Missourians, adult Missourians and low-income Missourians are overrepresented in prerequisite remedial courses, which can lead to higher college costs and longer time to degree completion. National research also corroborates these findings – a December 2021 report from Complete College America found that the corequisite model yielded positive outcomes when implemented at the University System of Georgia. However, it also noted that Black students, Hispanic / Latino/a students, and low-income students were more likely to be placed in the prerequisite model. An updated Report on College and Career Readiness will be written and released this year, which will continue to analyze the results of corequisite Math remediation and place a larger focus on corequisite English remediation, for which there was less data in the 2020 report.

Remedial Participation of Recent Missouri Public High School Graduates in Public Postsecondary Institutions					
	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
Total	22.8%	21.5%	19.8%	17.3%	16.9%
Math	17.6%	17.5%	15.9%	13.1%	12.5%
English	10.1%	8.2%	7.2%	6.5%	7.2%
Reading	6.0%	5.2%	4.4%	3.7%	3.3%

Other Trends in Enrollment and Preparation

- Overall enrollment in remedial coursework and enrollment in remedial math have declined each year since fall 2012. Enrollments in remedial English/writing and reading had declined since fall 2016, prior to remedial English/writing increasing again in fall 2021.
- Enrollment in non-credit (non-corequisite) remediation increased for the third year in a row at moderately selective institutions, from a low of 12.0 percent of incoming high school graduates in 2018 to 22.3 percent in 2021. Remediation also increased at selective institutions from 4.5 percent in 2020 to 6.4 percent in 2021, but declined from 26.1 to 22.9 percent at open admissions institutions.
- Overall remedial enrollment and enrollment in math remediation continued to decline for most racial/ethnic groups, although overall remediation remained steady since 2020 for white students at 15.2 percent. Enrollment in remedial English/writing increased for all groups except other/unknown, which includes American Indian / Alaska Native students, non-resident aliens, and multi-racial students along with students who declined to report their race/ethnicity (unknown). Racial/ethnic disparities also persist, although a nearly 30 percentage point gap in enrollment in any remediation between Black and white students in 2017 has narrowed to 16.3 points in 2021.
- Federal data reporting requires that institutions collect data on race and ethnicity separately, but report students who identify as Hispanic / Latino/a as such regardless of race. The High School Graduates' Report and most other DHEWD reporting mirrors this guidance. That said, as a percentage of the total cohort of incoming first-time full-time high school graduates, Hispanic / Latino/a students have increased every year but once since 2011, and Black students have declined since 2016. White students remained steady at 77.8 percent since 2021.

Performance and Retention in College

The Report on High School Graduates Performance also tracks several measures of student success and persistence in Missouri's public postsecondary sector. This year's report provides data about performance and retention in college for the public high school graduating class of 2020. Detailed summary tables are included in the attachment to this item. Among the more significant findings for this cohort are:

- Fall-to-fall retention has been generally stable in recent years, but declined slightly to 75.4 percent for the incoming fall 2020 cohort. Fall-to-fall retention rates ranged from 64.6 percent for Black students to 88.0 percent for Asian/Pacific Islander students. 76.4 percent of white students re-enrolled. Black and white retention both declined from 2019 (65.2 and 78.4 percent respectively).
- On average, this cohort completed 34.8 credits by the end of the spring 2021 term with a 3.02 grade point average. Asian/Pacific Islander students completed 38.6 credits with a 3.20 GPA, Black students completed 25.2 credits with a 2.46 GPA, and white students completed 36.0 credits with a 3.09 GPA. Women completed 35.7 credits with a 3.09 GPA, compared to men, who completed 33.7 credits with a 2.94 GPA. Credits completed include dual/advanced credit completed prior to enrollment.
- Students at two-year institutions (open admissions) completed 29.2 credits through spring 2021 with a 2.85 GPA. Students at four-year institutions, including open admissions and moderately selective, selective, and highly selective institutions completed 39.3 credits through spring 2021 with a 3.16 GPA.

Degree Completion

The timely completion of a certificate or degree is an additional indication of how well prepared Missouri's high school graduates are for college-level work. Detailed tables in the attachment to this item show the six-year degree completion rate of students beginning college in the fall of 2015. The findings include:

- 55.0 percent of incoming public Missouri high school students who entered as a first-time full-time degree-seeking undergraduate in fall 2015 had earned a degree or certificate from a public Missouri college or university by spring 2020. This is an increase over the 2014 cohort (53.5 percent). This rate does not account for transfer to or completion from an independent or out-of-state institution.
- 39.9 percent had earned a bachelor's degree, 17.9 percent earned an associate degree, and 2.6 percent earned a graduate or professional degree within six years. 8.8 percent earned an undergraduate certificate, which the report has not previously tracked. All percentages equal or improve upon the fall 2014 entering cohort, except for a slight decline in associate degree completers (18.1 percent in the prior cohort).
- Racial and ethnic disparities do persist; 64.2 percent of Asian/Pacific Islanders and 58.6 percent of white students earned a degree or certificate within six years, as did 31.9 percent of Black students and 45.9 percent of Hispanic / Latino/a students. Black and Hispanic / Latino/a students completed at a slightly lower rate than the 2014 cohort (32.2 and 46.4 percent respectively). Overall, women continue to graduate at a higher rate than men (57.0 percent compared to 52.6 percent).

Next Steps

DHEWD staff will continue to work on several fronts to encourage increased enrollment and persistence among recent high school graduates. This includes continued research on equity and on best practices in remedial education, including placement measures, and working with partner agencies and stakeholders. DHEWD aims not only to report on the implementation of corequisite supports for math and English corequisites in this year's Report on College and Career Readiness, but also to further integrate these supports into other department initiatives, such as the summer bridge communities of action.

Furthermore, the Department aims to examine the positive impact of corequisite remediation on student self-efficacy. These efforts will align DHEWD research on college and career readiness with mental health initiatives. In addition, DHEWD will continue outreach efforts to support increased FAFSA filing to encourage students to become more aware of their financial aid options, which also supports improved persistence and completion.

RECOMMENDATION

This is an information item only.

ATTACHMENT

- Enrollment and Preparation, Performance and Retention in College, and Degree Completion Tables

Tab 11 Attachment

Enrollment and Preparation, Performance and Retention in College, and Degree Completion Tables

Enrollment and Preparation

Table 1: Recent Public Missouri High School Graduate Enrollment by Sector, Gender, and Race/Ethnicity, 2011 to 2021													
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	10-Year % Change	1-Year % Change
Overall Enrollment	23,432	22,312	22,022	22,593	21,426	21,836	22,160	22,067	20,850	19,529	18,606	-20.6%	-4.7%
Two-Year	11,048	10,442	10,394	10,693	9,295	9,771	10,423	10,401	9,899	9,378	9,330	-15.6%	-0.5%
	47.5%	43.4%	47.2%	47.3%	43.4%	44.7%	47.0%	47.1%	47.5%	48.0%	50.1%		
Four Year	12,384	11,870	11,628	11,900	12,131	12,065	11,737	11,666	10,951	10,151	9,276	-25.1%	-8.6%
	52.5%	56.4%	52.8%	52.7%	56.6%	55.3%	53.0%	52.9%	52.5%	52.0%	49.9%		
Women	12,802	12,297	12,171	12,437	11,808	11,985	12,275	12,169	11,675	10,968	10,392	-18.8%	-5.3%
	54.7%	55.2%	55.3%	55.0%	55.1%	54.9%	55.4%	55.1%	56.0%	56.2%	55.9%		
Men	10,618	9,990	9,836	10,147	9,609	9,841	9,872	9,881	9,161	8,534	8,130	-23.4%	-4.7%
	45.2%	44.7%	44.7%	45.0%	44.9%	45.1%	44.5%	44.8%	43.9%	43.7%	43.7%		
Black / African-American	2,471	2,207	2,208	2,112	2,010	2,140	2,060	1,987	1,794	1,471	1,287	-47.9%	-12.5%
	10.8%	7.3%	10.0%	9.2%	9.4%	9.8%	9.3%	9.0%	8.6%	7.5%	6.9%		
White	18,555	17,118	17,209	17,773	16,769	17,008	17,184	17,036	15,925	15,201	14,478	-22.0%	-4.8%
	75.9%	68.0%	78.1%	76.1%	78.3%	77.9%	77.5%	77.2%	76.4%	77.8%	77.8%		
Hispanic / Latino/a	668	1,247	772	862	845	885	1,019	1,074	1,169	1,085	1,150	72.2%	6.0%
	1.4%	1.3%	2.1%	2.8%	3.9%	4.1%	4.6%	4.9%	5.6%	5.6%	6.2%		
Asian / Pacific Islander	413	418	485	547	497	489	483	489	531	484	542	31.2%	12.0%
	1.7%	1.6%	2.2%	2.4%	2.3%	2.2%	2.2%	2.2%	2.5%	2.5%	2.9%		
Other / Unknown	1,325	1,322	1,348	1,299	1,305	1,314	1,414	1,481	1,431	1,288	1,149	-13.3%	-10.8%
	10.3%	21.9%	7.5%	9.6%	6.1%	6.0%	6.4%	6.7%	6.9%	6.6%	6.2%		

Data Source: Enhanced Missouri Student Achievement Study (EMSAS)

Table 2: Recent Missouri Public High School Graduate Enrollment in Remediation by Institutional Admissions Selectivity; 2017 to 2021

	2017	2018	2019	2020	2021
Selective	8.8%	8.9%	7.2%	4.5%	6.4%
Math	8.3%	8.2%	6.5%	3.9%	5.5%
English	1.1%	1.4%	1.2%	0.8%	1.4%
Reading	-	-	-	-	-
Mod Selective	19.3%	12.0%	14.0%	18.8%	22.3%
Math	12.1%	10.1%	9.8%	12.7%	14.6%
English	10.3%	3.8%	6.2%	7.7%	9.8%
Reading	0.2%		0.5%	0.2%	
Open	33.5%	33.4%	30.7%	26.1%	22.9%
Math	25.8%	26.7%	24.7%	19.8%	17.1%
English	15.8%	14.0%	11.6%	10.1%	10.3%
Reading	11.6%	10.0%	8.4%	7.2%	6.3%

Source: Enhanced Missouri Achievement Study (EMSAS)

Table 3: Recent Missouri Public High School Graduate Enrollment in Remediation by Gender; 2017 to 2021

	2017	2018	2019	2020	2021
Women	24.4%	22.8%	21.3%	18.3%	17.6%
Math	19.6%	18.9%	17.8%	14.1%	13.1%
English	10.3%	8.2%	7.2%	6.6%	7.3%
Reading	6.4%	5.7%	4.6%	4.3%	3.5%
Men	20.8%	19.8%	17.9%	16.0%	16.0%
Math	15.1%	15.7%	13.5%	11.7%	11.7%
English	9.8%	8.1%	7.2%	6.3%	7.0%
Reading	5.4%	4.6%	4.2%	3.0%	3.0%

Source: Enhanced Missouri Achievement Study (EMSAS)

**Table 4: Recent Missouri Public High School Graduate Enrollment in Remediation
by Race / Ethnicity; 2017 to 2021**

	2017	2018	2019	2020	2021
Black / African-American	48.1%	42.4%	39.7%	32.2%	31.5%
Math	36.4%	34.7%	31.4%	24.6%	23.3%
English	30.0%	24.1%	18.6%	15.2%	16.6%
Reading	21.7%	19.7%	16.2%	11.4%	11.2%
White	19.4%	18.3%	16.6%	15.2%	15.2%
Math	15.1%	15.0%	13.4%	11.5%	11.2%
English	7.4%	6.1%	5.5%	5.3%	6.0%
Reading	3.9%	3.1%	2.5%	2.6%	2.4%
Hispanic / Latino/a	27.2%	30.1%	27.8%	22.7%	22.3%
Math	20.6%	24.5%	22.2%	17.5%	16.8%
English	13.1%	11.4%	10.5%	8.7%	10.7%
Reading	8.9%	8.8%	7.8%	5.4%	5.0%
Asian / Pacific Islander	15.7%	14.3%	14.3%	11.4%	9.4%
Math	10.8%	12.3%	11.5%	8.1%	7.0%
English	7.9%	5.9%	5.5%	4.5%	6.5%
Reading	5.0%	4.9%	5.1%	3.3%	3.1%
Other / Unknown	26.7%	26.1%	26.5%	23.0%	20.9%
Math	20.2%	20.5%	21.3%	16.8%	15.3%
English	12.4%	9.1%	10.0%	9.4%	8.3%
Reading	6.6%	7.6%	8.2%	7.3%	4.6%

**Source: Enhanced Missouri Achievement Study
(EMSAS)**

Performance and Retention in College

	Students	Completed Fall 2020	Avg. Fall 2020 GPA	Avg. Credits Completed (Fall 2020)	Completed Spring 2021	Avg. Spring 2021 GPA	Avg. Credits Completed (Spring 2021)	Enrolled Fall 2021
Female	10,968	97.7%	2.98	22.4	85.3%	3.09	35.7	76.3%
Black / African-American	886	96.0%	2.38	14.5	78.4%	2.49	25.8	66.6%
White	8,474	97.8%	3.07	23.7	86.0%	3.17	37.1	77.1%
Hispanic / Latino/a	635	98.1%	2.80	19.8	84.6%	2.89	32.6	77.2%
Asian / Pacific Islander	252	98.4%	3.24	25.1	91.7%	3.27	39.1	88.5%
Other / Unknown	721	97.9%	2.75	18.6	84.5%	2.87	31.2	73.9%
Male	8,534	97.2%	2.80	20.6	83.7%	2.94	33.7	74.2%
Black / African-American	580	94.1%	2.21	13.1	73.3%	2.41	24.2	61.7%
White	6,710	97.5%	2.86	21.5	85.0%	2.99	34.7	75.6%
Hispanic / Latino/a	450	97.1%	2.66	17.8	78.2%	2.83	31.3	70.4%
Asian / Pacific Islander	230	96.5%	3.17	25.0	92.2%	3.13	38.4	87.8%
Other / Unknown	564	96.1%	2.59	17.5	79.6%	2.76	29.9	68.4%
Total	19,529	97.5%	2.90	21.6	84.6%	3.02	34.8	75.4%
Black / African-American	1,471	95.3%	2.31	14.0	76.4%	2.46	25.2	64.6%
White	15,201	97.7%	2.98	22.7	85.6%	3.09	36.0	76.4%
Hispanic / Latino/a	1,085	97.7%	2.75	19.0	81.9%	2.87	32.1	74.4%
Asian / Pacific Islander	484	97.5%	3.21	25.0	91.9%	3.20	38.6	88.0%
Other / Unknown	1,288	97.1%	2.68	18.1	82.2%	2.82	30.6	71.5%

Source: Enhanced Missouri Achievement Study (EMSAS)

Table 6: Recent Missouri Public High School Graduate Retention by Sector and Race/Ethnicity; Fall 2020 - Fall 2021

	Students	Completed Fall 2020	Avg. Fall 2020 GPA	Avg. Credits Completed (Fall 2020)	Completed Spring 2021	Avg. Spring 2021 GPA	Avg. Credits Completed (Spring 2021)	Enrolled Fall 2021
Public 2Y	9,378	96.4%	2.66	17.6	77.9%	2.85	29.2	65.3%
Black / African-American	615	94.6%	2.10	11.7	71.2%	2.27	21.5	58.2%
White	7,381	96.5%	2.73	18.4	78.5%	2.93	30.2	65.7%
Hispanic / Latino/a	544	97.1%	2.47	15.8	75.9%	2.65	26.8	66.0%
Asian / Pacific Islander	163	96.3%	2.86	16.9	85.9%	2.82	26.8	80.4%
Other / Unknown	675	96.3%	2.47	14.9	76.6%	2.68	26.5	63.3%
Public 4Y	10,151	98.5%	3.12	25.2	90.8%	3.16	39.3	84.7%
Black / African-American	856	95.8%	2.47	15.6	80.1%	2.58	27.5	69.3%
White	7,820	98.9%	3.20	26.6	92.3%	3.23	40.7	86.5%
Hispanic / Latino/a	541	98.3%	3.03	22.1	88.0%	3.06	36.6	82.8%
Asian / Pacific Islander	321	98.1%	3.38	29.0	95.0%	3.38	44.0	91.9%
Other / Unknown	613	98.0%	2.90	21.6	88.4%	2.95	34.6	80.6%

Source: Enhanced Missouri Achievement Study (EMSAS)

Degree Completion

Table 7: Recent Missouri Public High School Graduate Six-Year Completion Rate by Gender and Race/Ethnicity; Fall 2015 through Spring 2021

	Students	Total Completions	% Completed Certificate	% Completed Associate	% Completed at Least Bachelor's	% Completed Graduate / Professional
Female	11,808	57.0%	9.2%	18.2%	41.9%	3.2%
Black / African-American	1,205	37.4%	5.8%	8.5%	30.0%	0.7%
White	9,186	60.5%	9.6%	19.7%	44.2%	3.6%
Hispanic / Latino/a	452	48.7%	10.4%	17.0%	34.5%	1.5%
Asian / Pacific Islander	258	66.3%	13.2%	14.0%	55.0%	7.0%
Other / Unknown	707	46.8%	8.1%	17.8%	31.8%	1.3%
Male	9,609	52.6%	8.3%	17.5%	37.4%	2.0%
Black / African-American	803	23.8%	3.6%	5.7%	18.2%	0.9%
White	7,579	56.2%	8.5%	18.8%	39.8%	2.1%
Hispanic / Latino/a	393	42.7%	12.0%	15.3%	29.3%	1.3%
Asian / Pacific Islander	239	61.9%	9.2%	16.7%	48.1%	5.4%
Other / Unknown	595	47.6%	9.2%	17.6%	33.8%	1.3%
Total	21,426	55.0%	8.8%	17.9%	39.9%	2.6%
Black / African-American	2,010	31.9%	4.9%	7.4%	25.3%	0.7%
White	16,769	58.6%	9.1%	19.3%	42.2%	2.9%
Hispanic / Latino/a	845	45.9%	11.1%	16.2%	32.1%	1.4%
Asian / Pacific Islander	497	64.2%	11.3%	15.3%	51.7%	6.2%
Other / Unknown	1,305	47.1%	8.6%	17.7%	32.7%	1.3%

Source: Enhanced Missouri Student Achievement Study (EMSAS)

Table 8: Recent Missouri Public High School Graduate Six-Year Completion Rate by Institutional Admissions Selectivity; Fall 2015 through Spring 2021

	Students	Total Completions	% Completed Certificate	% Completed Associate	% Completed at Least Bachelor's	% Completed Graduate/Professional
Highly Selective	742	77.8%	0.4%	2.7%	75.2%	10.5%
Selective	7,047	71.0%	10.5%	4.1%	67.0%	5.0%
Moderately Selective	3,497	55.3%	3.5%	4.4%	52.1%	2.4%
Open	10,140	42.2%	10.1%	33.2%	14.2%	0.5%

Source: Enhanced Missouri Student Achievement Study (EMSAS)